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(54) Title: WAVEGUIDE SYSTEM FOR DETECTION OF FLUORESCENTLY LABELED NUCLEIC ACID SEQUENCES

(57) Abstract: A system for detecting and identifying fluorescently labeled nucleic acid sequences. An embodiment of the system is comprised of an optical waveguide, an excitation light, a photo detector, filters for select fluorescent emissions, a reaction chamber, a data interpretation algorithm, and an addressable array, which assigns a known nucleic acid sequence at a precise location on the waveguide. An embodiment of the system uses a glass slide based array as an optical waveguide. Nucleic acid sequences are immobilized or hybridized to the surface of the waveguide. This abstract is intended to comply with the rules requiring an abstract that will allow a searcher or other reader to quickly ascertain the subject matter of the technical disclosure. It is submitted with the understanding that it will not be used to interpret or limit the scope of meaning of the claims.

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